

**\*\* Calculate the area of the following triangle:**

- a) Base = 4cm, Height = 3cm
- b) Base = 5cm, Height = 7cm
- c) Base = 5m, Height = 5m
- d) Base = 2km, Height = 2.5km

Solution:

a) Given,

Base = 4cm

Height = 3cm

We know,

$$\begin{aligned} \text{Area of triangle} &= \frac{(\text{Base} \times \text{Height})}{2} \\ &= \frac{(4 \times 3)}{2} \text{ Sq. cm} \end{aligned}$$

$$= \frac{12}{2} \text{ Sq. cm}$$

$$= 6 \text{ Sq. cm}$$

Ans: 6 Sq. cm.

b) Given,

$$\text{Base} = 5\text{cm}$$

$$\text{Height} = 7\text{cm}$$

We know,

$$\text{Area of triangle} = \frac{(\text{Base} \times \text{Height})}{2}$$

$$= \frac{(5 \times 7)}{2} \text{ Sq. cm}$$

$$= \frac{35}{2} \text{ Sq. cm}$$

$$= 17.5 \text{ Sq. cm}$$

Ans: 17.5 Sq. cm.

c) Given,

$$\text{Base} = 5\text{m}$$

$$\text{Height} = 5\text{m}$$

We know,

$$\text{Area of triangle} = \frac{(\text{Base} \times \text{Height})}{2}$$

$$= \frac{(5 \times 5)}{2} \text{ Sq. m}$$

$$= \frac{25}{2} \text{ Sq. m}$$

$$= 12.5 \text{ Sq. m}$$

Ans: 12.5 Sq. m.

d) Given,

$$\text{Base} = 2\text{km}$$

$$\text{Height} = 2.5\text{km}$$

We know,

$$\begin{aligned}\text{Area of triangle} &= \frac{(\text{Base} \times \text{Height})}{2} \\ &= \frac{(2 \times 2.5)}{2} \text{ Sq. km} \\ &= \frac{5}{2} \text{ Sq. km} \\ &= 2.5 \text{ Sq. km}\end{aligned}$$

Ans: 2.5 Sq. km.

\*\* The height of a triangle is 0.8 km and its area is 1.2 square km, then how many kilometres is the base?

Solution: Given,

$$\text{Area of triangle} = 1.2 \text{ Sq. km.}$$

$$\text{Height} = 0.8 \text{ km}$$

We know,

$$\text{Base} = \frac{(2 \times \text{Area})}{\text{Height}}$$

$$= \frac{(2 \times 1.2)}{0.8} \text{ km}$$

$$= \frac{2.4}{0.8} \text{ km}$$

$$= \left( \frac{2.4 \times 10}{0.8 \times 10} \right) \text{ km}$$

$$= \frac{24}{8} \text{ km}$$

$$= 3 \text{ km}$$

Ans: 3 km.